

Notice of Allowability

Application No.

10/542,828

Examiner

Dixomara Vargas

Applicant(s)

FUDERER, MIHA

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 12/21/06.
2. ☒ The allowed claim(s) is/are 3-5 and 9-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas E. Kocovsky Jr. on 03/01/07.

The application has been amended as follows:

Please substitute Abstract with the following:

"A magnetic resonance imaging method is presented for forming an image of an object, wherein a stationary magnetic field and temporary magnetic fields having a position dependent field pattern are applied, magnetic resonance signals are acquired by at least one receiver antenna, spins are excited in a part of the object, MR signals are acquired during application of the position-dependent field patterns (G1, G2,...) and a magnetic resonance image is derived from the sampled magnetic resonance signals. The field patterns are substantially non-linear, the number N of total field patterns is larger than 3, and at least N -1 field patterns are independently controllable in field strength. The magnetic resonance signals are acquired in a sub-sampling fashion."

Allowable Subject Matter

2. Claims 3-5 and 9-21 are allowed.
3. The following is an examiner's statement of reasons for allowance:
 - a. With respect to claim 3, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a MRI method for forming an image of an object wherein the position dependent field patterns are substantially non-linear, the number N of total field patterns is larger than 3, and at least N-1 field patterns are independently controllable in field strength in combination with the remaining limitations of the claim.
 - b. With respect to claim 9, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest a computer program product stored on a computer usable medium for forming an image comprising a computer readable program means for causing a computer to control the execution of applying a temporary magnetic fields having position dependent field patterns, said fields being substantially non-linear and a number N of total field patterns being larger than 3, field patterns with different position dependencies relative to at least one of the dimensions in combination with the remaining limitations of the claim.
 - c. With respect to claim 15, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest MRI apparatus comprising a controller which controls the gradient field system to apply the non-linear magnetic field gradients along at least one of the axes with a plurality of different spatial

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positions-dependent field patterns in combination with the remaining limitations of the claim.

d. With respect to claims 4, 5, 10-14 and 16-21, the claims have been allowed due to its dependency on claims 3, 9 and 15 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on Monday to Thursday from 8:00 am. to 4:30 pm..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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3/2/07
BRIJ SHRIVASTAV
PRIMARY EXAMINER